

Job Description

This job description in no way states or implies that these are the only duties to be performed by the employee occupying this position. Employees are required to follow other job-related instructions and to perform any other job-related duties as requested by their supervisor. Reasonable accommodation may be made to enable individuals with disabilities to perform the job functions described herein.

Job Title: **Electrical Specialist**

Department: Systems Maintenance

Pay Grade: 109

FLSA Status: Non-Exempt

JOB SUMMARY

Under limited supervision, performs skilled and complex duties for the assigned area in the installation, maintenance, and repair of electrical systems, machinery, devices, equipment, and/or miscellaneous fixtures. Depending on area assigned, work involves providing support for machine and instrumentation troubleshooting, installation, and calibration; repairing complex electrical systems and equipment; and the setting up of and installing instrumentation devices.

ESSENTIAL JOB FUNCTIONS

- Installs, maintains, alters, and repairs electrical wiring, devices, relays, terminals, breakers, and other miscellaneous electrical parts and equipment.
- Troubleshoots and diagnoses operational deficiencies occurring in control panels, motor control centers, breakers, RTU's, and limited troubleshooting of variable frequency drives and PLC's.
- Installs, replaces, calibrates, and adjusts electrical equipment such as float switches, flow meter converters, and transducers.
- Installs electrical conduit; pulls wiring and/or cable for new and/or replacement equipment, pumps, grinders, sensors, meters, transducers, floats, generators, receptacles, switches, lighting, etc.
- Conducts preventive maintenance inspections testing amperage, ohms, voltage, and resistance on motors, breakers, relays, and medium voltage switchgear.
- Monitors, maintains, and calibrates atmospheric test meters and associated records for use in confined spaces.
- Performs confined space entries; performs lock out/tag out procedures to ensure safety of personnel during maintenance procedures.
- Assists in the provision of standard operating and troubleshooting procedures for training for new personnel, Electrical Technicians and Mechanics.
- Performs duties in a role of Mechanics Assistant in order to perform preventive and corrective mechanical work.
- Receives and/or reviews various records and reports such as plan and schedule, technical manuals, safety regulations/procedure manuals, standard operating

- procedures, as-built drawings, and schematics.
- Prepares and/or processes various records and reports such as daily lift station activity logs, equipment inspection logs and reports, preventive maintenance forms, corrective maintenance forms, and schematics.
- Operates a variety of vehicles, equipment, and machinery such as variable frequency drives, pumps, pump motors, motor control centers, switch gear, generators, light to medium duty truck/van, PLC's, RTU's, VFD's, RVSS, laptop computer, tablets, etc.
- Uses a variety of tools such as hand tools, screwdrivers, strippers, wrenches, megohmmeter/multi-meter, amp probe, power tools, drills, drivers, saws, heat guns, gas detectors, meters, pipe, conduit, tubing benders, etc.; a variety of supplies such as fuses, relays, wire, starters, contractors, conduits, connectors, wire nuts, electrical tape, heat shrink, safety equipment, arc flash protection, maps, schematics, general office supplies, etc.; and a variety of computer software such as RS LOGIX, Flow Meter software, Wonderware, Microsoft Office Programs, etc.

MINIMUM QUALIFICATIONS

Education and Experience:

- High school diploma
- Three (3) years of related electrical maintenance, instrumentation experience, and/or integration experience; or
- Equivalent education, training, and/or experience.

Licenses or Certifications:

- Valid South Carolina driver's license.
- Requires a "B" level Wastewater Collection Systems Operators Certification or equivalent license from another state recognized by the WEASC VCC.

Special Qualifications:

- Able to use or learn to use, depending on area assigned, a variety of vehicles, equipment, and machinery such as company vehicles, light trucks, medium weight service/boom trucks, motor control centers, breakers, RTU's, VFD's, forklift, pumps, generators/gensets, flow meter converters, cell phones, computers and tablets, etc.; variety of tools such as hand tools, screwdrivers, strippers, wrenches, pliers, meters, camera, multimeter, analyzer, power tools, ladders, etc.; a variety of supplies such as wire, cable, various fittings, conduit and raceways, various fasteners, enclosures, boxes, general office supplies, etc.; and a variety of computer software such as RS Logix, RS Linx, Microsoft Office, Fluke View and Fluke Inside IR, Drive Executive, etc.

Knowledge, Skills and Abilities:

- Knowledge of the laws, ordinances, standards and regulations pertaining to the specific duties and responsibilities of the position.
- Knowledge of the occupational hazards and safety precautions of the trade.
- Knowledge of the standard practices, methods, and equipment of the electrical trade.
- Knowledge of proper English usage.
- Skill in the use and care of tools of the trade.
- Skill in handling mathematical calculations for the job.
- Ability to anticipate supplies, materials, tools and equipment needed for project completion and routine maintenance.
- Ability to follow complex oral and written instructions with minimal supervision.

- Ability to locate and correct defects in electrical systems and equipment.
- Ability to offer assistance to co-workers and employees of other departments as required.
- Ability to plan, organize, and prioritize daily assignments and work activities.
- Ability to prepare, maintain and make reports.
- Ability to establish and maintain effective relationships on the job.
- Ability to react calmly and quickly in emergency situations.

PHYSICAL DEMANDS

The work is heavy work. This requires exerting up to 100 pounds of force occasionally; and/or up to 50 pounds of force frequently; and/ or up to 20 pounds of force constantly to move objects. Additionally, the following physical abilities are required: balancing, climbing, crawling, crouching, feeling, fingering, grasping, handling, hearing, kneeling, lifting, mental acuity, pulling, pushing, reaching, repetitive motion, speaking, standing, stooping, talking, visual acuity, and walking.

WORK ENVIRONMENT

Works inside an environmentally controlled space; also, works outside in sometimes adverse environmental conditions (e.g., heat, cold, and rain) for moderate periods of time. Exposure to construction, water/wastewater site hazards, traffic, toxic agents, noise, wetness, humidity, electric currents, machinery hazards, dusts, vibrations, odors, and moving machinery. Involves working with high voltage equipment, confined spaces, heights, and below ground level conditions.

The North Charleston Sewer District has the right to revise this job description at any time and it does not represent in any way a contract of employment. My signature below indicates that I have received and reviewed the above description. I am able to perform the essential functions of my position with or without reasonable accommodation.

Employee Signature

Date

Supervisor (or HR) Signature

Date